CHLAMYDIA TRACHOMATIS

DISEASE REPORTING

In Washington

DOH receives approximately 9,237(1996) to 13,631 (2001) reports of chlamydia per year, for an average rate of 198/100,000 persons.

Purpose of reporting and surveillance

- To assure the adequate treatment of infected individuals in order to curtail infectiousness and prevent sequelae of infection (e.g., pelvic inflammatory disease and infertility).
- To identify, contact, and treat sexual contacts of reported cases in order to break the chain of transmission.

Reporting requirements

- Health care providers: notifiable to Local Health Jurisdiction within 3 work days
- Hospitals: notifiable to Local Health Jurisdiction within 3 work days
- Laboratories: notifiable to Local Health Jurisdiction within 2 work days
- Local health jurisdictions: notifiable to DOH Infectious Disease and Reproductive Health within 7 days of case investigation completion or summary information required within 21 days

CASE DEFINITION FOR SURVEILLANCE

Clinical criteria for diagnosis

Infection with *Chlamydia trachomatis* may result in urethritis, epididymitis, cervicitis, acute salpingitis, or other syndromes when sexually transmitted; however, the infection is often asymptomatic in women. Perinatal infections may result in inclusion conjunctivitis and pneumonia in newborns. Other syndromes caused by *C. trachomatis* biovars include lymphogranuloma venereum (see Lymphogranuloma Venereum) and trachoma.

Laboratory criteria for diagnosis

- Isolation of *C. trachomatis* by culture or
- Demonstration of *C. trachomatis* in a clinical specimen by detection of antigen or nucleic acid.

Case definition

- Confirmed: a case that is laboratory confirmed.

A. DESCRIPTION

1. Identification

Sexually transmitted genital infection is manifested in males primarily as a urethritis, and in females as a mucopurulent cervicitis. Clinical manifestations of urethritis are often difficult to distinguish from gonorrhea and include mucopurulent discharges of scanty or moderate quantity, urethral itching, and burning on urination. Asymptomatic infection may be found in up to 75% of sexually active men. Possible complications or sequelae of male urethral infections include epididymitis, infertility and Reiter's syndrome. In homosexual men, receptive anorectal intercourse may result in chlamydial proctitis.

In the female, the clinical manifestations may be similar to those of gonorrhea and frequently present as a mucopurulent endocervical discharge, with edema, erythema and easily induced endocervical bleeding caused by inflammation of the endocervical columnar epithelium. However, up to 75% of sexually active women with chlamydial infections are asymptomatic. Complications and sequelae include salpingitis with subsequent risk of infertility, ectopic pregnancy or chronic pelvic pain. Asymptomatic chronic infections of the endometrium and fallopian tubes may lead to the same outcome. Less frequent manifestations include bartholinitis, urethral syndrome with dysuria and pyuria, perihepatitis (Fitz-Hugh-Curtis syndrome) and proctitis. Infection during pregnancy may result in premature rupture of membranes and preterm delivery, and conjunctival and pneumonic infection of the newborn. Endocervical chlamydial infection has been associated with increased risk of acquiring HIV infection.

Chlamydial infections may be acquired concurrently with gonorrhea and persist after the gonorrhea has been successfully treated. Because gonococcal and chlamydial cervicitis are often difficult to distinguish clinically, testing for both organisms is recommended. However, treatment for gonorrhea is not always needed when *C. trachomatis* is diagnosed.

Diagnosis of nongonococcal urethritis (NGU) or cervicitis is usually based on the failure to demonstrate *Neisseria gonorrhoeae* by smear and culture; chlamydial etiology is confirmed by examination of intraurethral or endocervical swab material by direct IF test with monoclonal antibody, EIA, DNA probe, nucleic acid amplification test (NAAT) or cell culture. NAATs can be used with urine specimens. The intracellular organisms are less readily recoverable from the discharge itself.

2. Infectious Agent

Chlamydia trachomatis, immunotypes D through K.

3. Worldwide Occurrence

Common worldwide; in the US, Canada, Australia and Europe, recognition has increased steadily in the last two decades.

4. Reservoir

Humans.

5. Mode of Transmission

Sexual intercourse.

6. Incubation period

Poorly defined, probably 7-14 days or longer.

7. Period of communicability

Unknown. Relapses are probably common.

8. Susceptibility and resistance

Susceptibility is general. No acquired immunity has been demonstrated; cellular immunity is immunotype specific.

B. METHODS OF CONTROL

1. Preventive measures:

a. Health and sex education; same as for syphilis (see SYPHILIS, 9A), with emphasis on use of a condom when engaging in sexual intercourse.
b. Screening of sexually active adolescent girls should be routine. Screening of adult women should also be considered if they are less than 25 years of age, have multiple or new sex partners, and/or use barrier contraceptives inconsistently. Newer tests for *C. trachomatis* infection which enable screening of adolescent and young adult males, as well, may be used with urine specimens.

2. Control of patient, contacts and the immediate environment:

a. Report to local health authority.
b. Isolation: Universal precautions, as appropriate for hospitalized patients. Appropriate antibiotic therapy renders discharges noninfectious; patients should refrain from sexual intercourse until treatment of index patient and current sexual partners is completed.

c. A high prevalence of *C. trachomatis* infection has been found in women who have had chlamydial infection in the preceding several months, due to reinfection. It is now recommended that women should be rescreened 3-4 months after treatment.
d. Concurrent disinfection: Care in disposal of articles contaminated with urethral and vaginal discharges.
e. Quarantine: None.
f. Immunization of contacts: Not applicable.
g. Investigation of contacts and source of infection: Prophylactic treatment of sexual partners is recommended. As a minimum, concurrent treatment of regular sex partners is a practical approach to management. *C. trachomatis* infection in neonates is most often recognized by conjunctivitis that develops 5-12 days after birth and is the most frequent identifiable infectious cause of ophthalmia neonatorum. If neonates born to infected mothers have not received systemic treatment, chest x-ray at 3 weeks of age and again after 12-18 weeks may be considered to exclude subclinical chlamydial pneumonia.
h. Specific treatment for adults: azithromycin 1 gm PO single dose, or doxycycline 100 mg PO twice daily for 7 days. Alternative regimens include erythromycin base 500 mg PO four time daily for 7 days, or erythromycin ethylsuccinate 800 mg PO four times daily for 7 days, or ofloxacin 300 mg PO twice daily for 7 days or levofloxacin 500 mg PO for 7 days. Doxycycline and ofloxacin are contraindicated in pregnant women, however, clinical experience and preliminary data suggest that azithromycin is safe and effective.

3. Epidemic measures

None.

4. International measures

None.